

Delphinium hillcoatiae var. *pilocarpum* (Ranunculaceae), a New Variety from Xizang, China

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ABSTRACT. *Delphinium hillcoatiae* var. *pilocarpum* Q. E. Yang & Y. Luo (Ranunculaceae) is described as a new variety from Xizang, China. It differs from the typical variety by having densely puberulent ovaries.

Key words: China, *Delphinium*, Ranunculaceae.

In the course of examining specimens of Ranunculaceae at Kew in 2002, four collections of the genus *Delphinium* L. from the neighborhood of Lhasa, the capital city of Xizang, China, caught our attention. At first glance all four collections, *F. Spencer Chapman* 136, 943, *J. F. Duthie s.n.*, and *L. A. Waddell s.n.*, show no essential difference in appearance from *D. hillcoatiae* Munz, a species also described from this region. However, upon careful examination we found that one of the collections, *Chapman* 943, has glabrous ovaries, while the remaining three all have densely puberulent ovaries. In the protologue, Munz (1968) described his species as having glabrous carpels. This has been confirmed by our examination of the holotype of Munz's species, *Ludlow & Sherriff* 2424, and the paratype, *Kingdon Ward* 12370, both deposited at BM. These two collections have totally glabrous ovaries indeed. One gathering at PE, *Qinghai-Xizang Exped.* 7938, which was made from Qüxü County very near Lhasa and named as *D. hillcoatiae*, also has densely puberulent ovaries. The descriptions of *D. hillcoatiae* in the *Flora Reipublicae Popularis Sinicae* (Wang, 1979), *Flora Xizangica* (Wang, 1985), and *Flora of China* (Wang & Wernock, 2001) may all have been mainly based on this collection because the ovaries were described as puberulent in these works.

Delphinium hillcoatiae is only known from the Lhasa region, Xizang, China. This species is distinguished by its woody root, leaves 3-partite within 1 cm from the base, stem, inflorescence rachis, and pedicels all densely spreading glandular puberulent, 4- to 20-flowered terminal raceme, and stamens and petals black-brown. Based on these

characters it should be a member of *D.* subg. *Delphinastrum* (DC.) Petermann sect. *Elatopsis* Huth, but we cannot yet find with certainty its closest ally in the Chinese species of *Delphinium*.

As the specimen at PE cited above as well as the three specimens at Kew, all with densely puberulent ovaries, show no other difference from *Delphinium hillcoatiae* and occur in nearly the same region as the species, it seems reasonable to treat them as a new variety.

Delphinium hillcoatiae* Munz var. *pilocarpum
Q. E. Yang & Y. Luo, var. nov. TYPE: China. Xizang: Qüxü County, shady places, 3600 m, 25 Sep. 1975 (fl), *Qinghai-Xizang Exped.* 7938 (holotype, PE; isotype, PE).

A typo ovariiis dense puberulis differt.

This variety differs from *Delphinium hillcoatiae* var. *hillcoatiae* by its densely puberulent ovaries. In the typical variety, the ovaries are totally glabrous.

The two varieties are only known from the Lhasa region and its neighborhood, Xizang, China. According to the collectors' note, the typical variety grows on open dry stony hillside, whereas the variety *pilocarpum* grows in shady places.

Paratypes. CHINA. **Xizang:** Lhasa, 18 Sep. 1904, *L. A. Waddell s.n.* (K), May–July 1947, *J. F. Duthie s.n.* (K); Cheesul (= Qüxü ?), 11,500 ft., 21 Aug. 1936, *F. Spencer Chapman* 136 (K).

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Literature Cited

Munz, P. A. 1968. A synopsis of the Asian species of *Delphinium*, sensu stricto. *J. Arnold Arbor.* 49: 73–166.

<p>Wang, W. T. 1979. <i>Delphinium</i>. Pp. 326–462 in <i>Flora Republicae Popularis Sinicae</i>, Vol. 27. Science Press, Beijing.</p> <p>———. 1985. <i>Delphinium</i>. Pp. 39–59 in Z. Y. Wu (editor), <i>Flora Xizangica</i>, Vol. 2. Science Press, Beijing.</p>	<p>——— & M. J. Warnock. 2001. <i>Delphinium</i>. Pp. 223–274 in Z. Y. Wu & P. H. Raven (editors), <i>Flora of China</i>, Vol. 6. Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.</p>
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